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Practitioner's Docket No. 01CR046/KE

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of: Barber et al.

Application No.: 10/055,258

Group No.: 2179

Filed: January 23, 2002

Examiner: T. Chuong

For: Avionics Display System For Memorization of Display Configuration To Phase Of Flight Pushbuttons

Mail Stop Appeal Briefs - Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION--37 C.F.R. § 1.192)

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on April 24, 2006.
2. STATUS OF APPLICANT

This application is on behalf of other than a small entity.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

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Sheila K. Mathews

Date: June 23, 2006

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* Only the date of filing (' 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under ' 1.8 continues to be taken into account in determining timeliness. See ' 1.703(f). Consider "Express Mail Post Office to Addressee" (' 1.10) or facsimile transmission (' 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. § 1.17(c), the fee for filing the Appeal Brief is:

other than a small entity \$500.00

Appeal Brief fee due \$500.00

4. EXTENSION OF TERM

The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$500.00
Extension fee (if any) \$0.00

TOTAL FEE DUE \$500.00

6. FEE PAYMENT

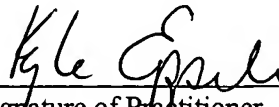
Authorization is hereby made to charge the amount of \$500.00 to Deposit Account No. 18-1722.

A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

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Atty. Dkt. No. 01CR046/KE

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellants: Barber et al.

Title: AVIONICS DISPLAY SYSTEM
FOR MEMORIZATION OF
DISPLAY CONFIGURATION
TO PHASE OF FLIGHT
PUSHBUTTONS

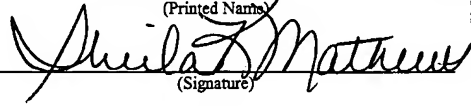
Appl. No.: 10/055,258

Filing Date: 1/23/2002

Examiner: Truc T. Chuong

Art Unit: 2179

Confirmation Number: 6742

CERTIFICATE OF EXPRESS MAILING	
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BRIEF ON APPEAL

Mail Stop – APPEAL BRIEF - PATENTS
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

REAL PARTY IN INTEREST

The real party in interest is the assignee of record, Rockwell Collins, Inc.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences that will directly affect, be directly affected by, or have a bearing on the present appeal, that are known to Appellants or Appellants' patent representative.

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STATUS OF CLAIMS

The present appeal is directed to Claims 1-14, all of which stand rejected pursuant to a final Office Action dated January 26, 2006.

STATUS OF AMENDMENTS

Claims 1-14 were pending in the application when a final Office Action dated January 26, 2006 was issued. No amendments to the claims have been made subsequent to the final Office Action dated January 26, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates generally to an avionics system having displays with display configurations pilot selected for a phase of flight of an aircraft and reconfigurable for each phase of flight. See present application, pages 2-3, and Figures 1-7.

More particularly, an embodiment of the present invention includes a multifunction flight display that stores and displays phase of flight display configurations for each phase of flight - climb, cruise, and descend - of an aircraft. See present application, pages 5-6, and Figures 3-7. The embodiment of the present invention further includes a cursor control panel connected to the multifunction display, allowing for changes from one stored phase of flight display configuration to another stored phase of flight configuration when the aircraft changes phase of flight. See present application, page 6, and Figure 2. The cursor control panel also is used for reconfiguring the display configuration for each phase of flight, and has phase of flight quick access pushbuttons for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration by selecting the new configuration and pressing a phase of flight quick access pushbutton for a predetermined time to store a new configuration. See present application, pages 6-9, and Figure 2.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The issues on appeal are: (1) whether the Examiner erred in rejecting Claims 8-9 as being unpatentable under 35 U.S.C. § 102(b) over U.S. Patent No. 6,112,141 to Briffe et al., and (2) whether the Examiner erred in rejecting Claims 1-7 and 10-14 as being unpatentable under 35 U.S.C. § 103(a) over Briffe et al. in view of U.S. Patent No. 6,636,354 to D’Hooge et al.

ARGUMENT

A. LEGAL STANDARDS

Claims 8-9 have been rejected under 35 U.S.C. § 102(b), which states:

A person shall be entitled to a patent unless - . . .
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States

Under the identity requirement of 35 U.S.C. § 102, a single prior art reference must disclose each and every limitation of the claimed invention. “For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference.” See In re Bond, 910 F.2d 831, 832 (Fed. Cir. 1990).

Claims 1-7 and 10-14 have been rejected under 35 U.S.C. § 103(a), which states:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The legal standards under 35 U.S.C. § 103(a) are well-settled. Obviousness under 35 U.S.C. § 103(a) involves four factual inquiries: 1) the scope and content of the prior art; 2) the

differences between the claims and the prior art; 3) the level of ordinary skill in the pertinent art; and 4) secondary considerations, if any, of nonobviousness. See Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966).

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. In re Piasecki, 745 F.2d 1468, 1471-72, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984). “[The Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” In re Fritch, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992).

As noted by the Federal Circuit, the “factual inquiry whether to combine references must be thorough and searching.” McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 60 USPQ.2d 1001 (Fed. Cir. 2001). Further, it “must be based on objective evidence of record.” In re Lee, 277 F.3d 1338, 61 USPQ.2d 1430 (Fed. Cir. 2002). The teaching or suggestion to make the claimed combination must be found in the prior art, and not in the appellant’s disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ.2d 1438 (Fed. Cir. 1991). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990). “It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to ‘[use] that which the inventor taught against its teacher.’” Lee (citing W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)).

B. REJECTION OF CLAIMS 8-9 UNDER 35 U.S.C. § 102(b) OVER BRIFFE ET AL. SHOULD BE REVERSED BECAUSE BRIFFE ET AL. DOES NOT DISCLOSE EVERY ELEMENT OF THE CLAIMED INVENTION

With respect to independent claim 8, an avionics system is recited. The avionics system is capable of reconfiguring display configurations associated with phases of flight. Phases of flight are flight modes, such as climb, cruise, and descend modes. “Reconfiguring” as used in claim 8 does not refer to simply changing parameters displayed on the display or even drilling down into further submenus associated with the display configuration. Rather, “reconfiguring” relates to changing the way in which windows are displayed for the particular flight mode. Further, the “reconfiguring” is associated with a particular mode of flight. Neither of these aspects of “reconfiguring” is present in Briffe et al.

According to one exemplary embodiment of the system recited in claim 8, middle window 310 on the display 110 can be reconfigured to be a different window format, such as: vertical terrain display, checklist index window, or flight management system text window. See present application, page 7. Similarly, bottom window 320 on the display 110 can be reconfigured to be a different window format, such as: a present position window, a plan window, a data link window, a chart window, a traffic window, and a maintenance window. See present application, pages 7-8. The next time a particular mode of flight - climb, cruise, or descend - is displayed, the pilot-selected windows are displayed in the new reconfigured format. See present application, pages 6-7. The specification of the present application discloses a number of exemplary embodiments of reconfiguration features.

Prior attempts at automating cockpit display configuration for climbing to an altitude, cruising at an altitude, and descending have been made by using a series of preset display configurations for each phase of flight. The pilot selects a phase of flight configuration and the

display is automatically reconfigured depending on the aircraft flight phase to the preset configuration for that phase. Thus, in the prior art, the display configuration is preset and cannot be reconfigured. See present application, Background of the Invention, page 2. A display configuration that is preset and cannot be reconfigured is also the teaching of Briffe et al.

In Briffe et al., the display is configured as shown in Figure 21 for take-off and cruise and is selected by the pilot with the “FLT PLAN” key in main menu 122 of Figure 9. See Briffe et al., column 31, lines 10-12. Briffe et al. does not disclose the reconfiguration of displays for flight modes such as climb, cruise, and descend. Indeed, all that can be changed in the configurations for the modes of flight according to the teaching of Briffe et al. are the parameters of the flight plan, e.g. origin airport, destination airport, cargo weight, fuel on board, altitude, speed etc. See Briffe et al., column 31, lines 56-67, column 32, lines 1-14, and column 42, lines 16-57. This is simply not the same as reconfiguring the display. Only the flight plan is changed, not the manner in which it is displayed. Further, reconfiguration of the flight plan does not occur on a flight mode basis.

In paragraph 1 of the Final Office Action, the Examiner states:

Briffe teaches an avionics system having ...display configurations pilot-selected for a phase of flight of an aircraft ... comprising ... a flight display ... and ... a cursor control panel ... for reconfiguring the display configuration for each phase of flight (the existing flight plan display on the screen can be modified by the crew with new parameters, e.g., column 39 lines 30-63).

Appellants respectfully disagree with the Examiner's assertion; Briffe et al. does not teach the reconfiguration of the display configuration. Rather, Briffe et al. teaches a display configuration that is preset and cannot be reconfigured, teaching what Appellants regard as prior art.

In paragraph 3 of the Final Office Action, the Examiner states:

Briffe clearly teaches that the pilot always has the ability to enforce the use of values he wants (e.g., column 31, lines 14-15).

Appellants agree that Briffe et al. allows the pilot to insert flight plan values. However, appellants respectfully disagree that providing the flight plan values to input into an interface is the same as reconfiguring the display in accordance with a flight mode such as climb, cruise, or descend. Indeed, even if the Examiner's statement is taken as correct, there is no indication that the reconfiguration taught in Briffe et al. is done on a flight mode basis.

Dependent claim 9 further includes the limitation of middle and lower windows for displaying a pilot-selectable display configuration. See present application, pages 7-8. Though Briffe et al. discloses middle and lower display windows, as discussed above, Briffe et al. does not disclose middle and lower display windows for display of a pilot-selectable display configuration. Briffe et al. discloses middle and lower display windows in which the display configuration is fixed, and thus does not anticipate the present invention.

In summary, Briffe et al. is completely consistent with the prior art as described in the background of the present invention. The display configuration according to Briffe et al. is preset and cannot be reconfigured. The changing of parameters or drilling down into flight plans is not

a reconfiguration of the display for that mode of flight. Under 35 U.S.C. § 102(b), every element of the claimed invention must be identically shown in a single reference to qualify as prior art. Because Briffe et al. does not disclose the reconfiguration of displays for flight modes, claims 8-9 are not properly rejected under 35 U.S.C. § 102(b) over Briffe et al. Appellants request the reversal of the rejection of claims 8-9.

C. REJECTION OF CLAIMS 1-7 AND 10-14 UNDER 35 U.S.C. § 103(a) OVER BRIFFE ET AL. AND D'HOOGHE ET AL.

To establish a prima facie case of obviousness based on a combination of prior art references under 35 U.S.C. § 103(a), the Examiner must first show that there is a suggestion or motivation to combine the teachings of those references. This may come in the form of some objective teaching in the prior art or, alternatively, knowledge generally available to one of ordinary skill in the art at the time of the invention that would lead that individual to combine the relevant teachings of the references. When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the Examiner to explain why the combination of the teachings is proper. Ex parte Skinner, 2 USPQ.2d 1788 (Bd. Pat. App. & Inter. 1986).

In this case, the Examiner has not satisfied the burden of showing that there would have been any motivation or suggestion to one of skill in the art to combine the teachings of Briffe et al. with those of D'Hooge et al.

I. The Examiner's rejection of claims 1-7 and 10-14 under 35 U.S.C. § 103(a) over Briffe et al. in view of D'Hooge et al. should be reversed because the combination of Briffe et al. and D'Hooge et al. is improper

The combination of Briffe et al. and D'Hooge et al. is improper for at least two reasons. First, D'Hooge et al. and Briffe et al. are from completely different art backgrounds and do not address the same problem. Second, there is no motivation to combine D'Hooge et al. with Briffe et al.

a. The combination of Briffe et al. and D'Hooge et al. is improper because they are from completely different art backgrounds

When analyzing obviousness under 35 U.S.C. § 103, full knowledge of the inventor of analogous art (i.e. prior art in the inventor's field of endeavor) is presumed. In re Pagliaro, 657 F.2d 1219, 1224 (C.C.P.A. 1981). In In re Clay, the court stated that:

Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.

In re Clay, 966 F.2d 656, 659 (Fed. Cir. 1992). The court further explained that a "reasonably pertinent" references is one that, because of its subject matter, would logically appeal to the inventor when considering an inventive problem. Id. "Thus, the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve." Id. Appellants maintain that D'Hooge et al. fails both prongs of the In re Clay analysis above and was thus improperly considered prior art by the Examiner in this case.

D’Hooge et al. fails prong one of the In re Clay analysis because D’Hooge et al. is not art from the same field of endeavor as the present invention. Briffe et al. and the present invention are related to avionics. By contrast, D’Hooge et al. is related to a computer microscope system. Further, the apparatus disclosed in Briffe et al. and the present application are utilized by a pilot or co-pilot, while the apparatus disclosed in D’Hooge et al. is utilized by a scientist or other technician. There is precisely no use for the microscope of D’Hooge et al. in the cockpit of the aircraft.

D’Hooge et al. also fails prong two of the In re Clay analysis because D’Hooge et al. is not reasonably pertinent to the particular problem of the present invention. Making adjustments to a microscope does not address the problems associated with avionic displays. Further, the switch button disclosed in D’Hooge et al. functions to activate a “record movie feature,” whereas the quick access pushbuttons of the present invention are for selecting a stored phase of flight configuration and for reconfiguring a stored a stored phase of flight configuration into a new phase of flight configuration. The purposes of the present invention and D’Hooge et al. are entirely different, accordingly, the combination of D’Hooge et al. with Briffe et al. is improper because it is completely unrelated to the application of the present application.

b. The combination of Briffe et al. and D’Hooge et al. is improper because there is no motivation to combine D’Hooge et al. with Briffe et al.

There is simply no explicit or inherent suggestion to combine Briffe et al. and D’Hooge et al. In paragraph 2 of the Final Office Action, the Examiner states, “It would have been obvious at the time of the invention, [that] a person with ordinary skill in the art would modify the Flight

Management System of Briffe in view of D’Hooge with the separate pushbuttons to provide convenience and improve visibility for the flight crew.” However, this statement does not provide any motivation to combine Briffe et al. with D’Hooge et al.

As discussed above in subsection a, Briffe et al. and D’Hooge et al. are not even concerned with the same field of endeavor. D’Hooge et al. teaches “press[ing] and hold[ing] the switch button 163 for an extended period of time to indicate that the record movie feature is desired.” D’Hooge et al., column 9, line 67 – column 10, line 1. D’Hooge et al. does not teach separate pushbuttons to provide convenience, rather it teaches a single pushbutton with multiple features. Further, there is absolutely no indication that the teaching of D’Hooge et al. was motivated by a desire to improve visibility of a microscope operator or would have suggested improved visibility for a flight crew to one skilled in the art. Accordingly, it is clear that the Examiner is improperly picking and choosing features of D’Hooge et al. to put into Briffe et al. using improper hindsight from the present application. Appellants request reversal of the rejection of claims 1-7 and 10-14 under 35 U.S.C. § 103(a) over Briffe et al. in view of D’Hooge et al. because the combination of Briffe et al. and D’Hooge et al. is improper.

II. The Examiner’s rejection of Claims 1-7 and 10-14 under 35 U.S.C. § 103(a) over Briffe et al. in view of D’Hooge et al. should be reversed because at least one limitation of each of these claims is not taught or suggested by the combination of Briffe et al. and D’Hooge et al.

The Appellants submit that claims 1-7 and 10-14 would not have been obvious to one of ordinary skill in the art at the time of the invention in view of the combined teachings of Briffe et al. and D’Hooge et al.

To establish prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art (see M.P.E.P. § 2143.03). Because at least one limitation of each of claims 1-7 and 10-14 is not taught or suggested by the combination of Briffe et al. and D’Hooge et al., these claims would not have been obvious to one of ordinary skill in the art at the time of the invention. For example, the cited references neither teach nor suggest the limitation of reconfiguring display configurations found in independent claim 5.

As discussed in detail above in section B, Briffe et al. teaches a display configuration that is preset and that cannot be reconfigured. D’Hooge et al. teaches “press[ing] and hold[ing] the switch button 163 for an extended period of time to indicate that the record movie feature is desired.” D’Hooge et al., column 9, line 67 – column 10, line 1. Moreover, the cited references neither teach nor suggest the limitation of reconfiguring display configurations in accordance with a phase of flight as recited in independent claim 5. D’Hooge et al. does not cure the deficiencies of Briffe et al. Accordingly, Appellants request reversal of the rejections of claim 5 and its dependent claims 6-7.

The combination of Briffe et al. and D’Hooge et al. also does not teach or suggest the use of quick access pushbuttons to reconfigure display configurations as disclosed in claim 5 and its dependent claims 6-7. Briffe et al. teaches that “[s]equential operation of the cursor control device and selection device is thus operative to store a flight plan in the memory.” Briffe et al., column 3, lines 28-30. Briffe et al. does not teach an apparatus or method for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration, by means of a single pushbutton, multiple pushbuttons, or by

any other means. D’Hooge et al. does not teach separate pushbuttons rather it teaches a single pushbutton with multiple features (of which storing a configuration is not one) and does not cure the deficiencies of Briffe et al. Accordingly, Appellants request reversal of the rejections of claim 5 and its dependent claims 6-7.

Independent claim 5 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D’Hooge et al. of pressing a quick access pushbutton for a period of time to store a new display configuration. There is simply no suggestion in either Briffe et al. or D’Hooge et al. for using the quick access button for this reconfiguration. Indeed, D’Hooge et al. does not even mention quick access buttons. Appellants request reversal of the rejection of claim 5.

Dependent claim 6 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D’Hooge et al. of selecting a prestored climb display configuration with a climb quick access pushbutton when the aircraft is in a climb phase of flight. Appellants request reversal of the rejection of claim 6.

Dependent claim 6 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D’Hooge et al. of selecting a prestored cruise display configuration with a climb quick access pushbutton when the aircraft is in a cruise phase of flight. Appellants request reversal of the rejection of claim 6.

Dependent claim 6 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D’Hooge et al. of selecting a prestored descend display

configuration with a climb quick access pushbutton when the aircraft is in a descend phase of flight. Appellants request reversal of the rejection of claim 6.

Dependent claim 7 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D'Hooge et al. wherein each of the steps of selecting the climb phase of flight configuration, the cruise phase of flight configuration, and descend phase of flight configuration comprises selecting a middle window display configuration from the group consisting of a checklist index, a flight management system text, and a vertical terrain profile and selecting a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats. The Examiner states in paragraph 2 of the Final Office Action:

Briffe also show[s] a middle window display configuration from the group consisting of a checklist index, a flight management text system, and a vertical terrain profile and a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats (Briffe clearly teaches th[at] in fig. 21 . . . the middle window 556 shows the checklist such as NORM, WET, DRY etc. and the lower window shows position at 18000 FT.)

Appellants respectfully assert that the Examiner has improperly equated changes to data entries in a static display configuration, the teaching of Briffe et al., with display configurations associated with flight modes that can be reconfigured, the teaching of the present invention. Accordingly, Appellants request reversal of the rejection claim 7.

The cited references neither teach nor suggest the limitation of reconfiguring display configurations found in independent claim 1. As discussed in detail above in section B, Briffe et

al. teaches a display configuration that is preset and that cannot be reconfigured. D’Hooge et al. teaches “press[ing] and hold[ing] the switch button 163 for an extended period of time to indicate that the record movie feature is desired.” D’Hooge et al., column 9, line 67 – column 10, line 1. Moreover, the cited references neither teach nor suggest the limitation of reconfiguring display configurations for different phases of flight found in independent claim 1. D’Hooge et al. does not cure the deficiencies of Briffe et al. Accordingly, Appellants request reversal of the rejections of claim 1 and its dependent claims 2-4.

The combination of Briffe et al. and D’Hooge et al. also does not teach or suggest the use of a climb quick access pushbutton to reconfigure a display configuration, a cruise quick access pushbutton to reconfigure a display configuration, or a descend quick access pushbutton to reconfigure a display configuration as disclosed in claim 1 and its dependent claims 2-4. Briffe et al. teaches that “[p]ressing the ‘ALT’ push-button selects current altitude holding.” Briffe et al., column 24, lines 33-34. Briffe et al. also teaches the use of “soft keys” for selection of vertical modes of the autopilot. Briffe et al., column 28, lines 7-9. Briffe et al. does not teach an apparatus or method for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration, by means of a single pushbutton, multiple pushbuttons, or by any other means. D’Hooge et al. does not teach separate pushbuttons rather it teaches a single pushbutton with multiple features (of which storing a configuration is not one) and does not cure the deficiencies of Briffe et al. Accordingly, Appellants request reversal of the rejections of claim 1 and its dependent claims 2-4.

Independent claim 1 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D'Hooge et al. of pressing a climb quick access pushbutton for a period of time to store the new climb display configuration. Appellants request reversal of the rejection of claim 1.

Dependent claim 2 further includes the additional limitation not taught or suggested by the combination of Briffe et al. and D'Hooge et al. of using the cruise quick access pushbutton to store a new cruise display configuration. Appellants request reversal of the rejection of claim 2.

Dependent claim 3 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D'Hooge et al. of reconfiguring the prestored descend display configuration with controls on a cursor control panel and on an avionics display. Appellants request reversal of the rejection of claim 3.

Dependent claim 3 further includes the additional not taught or suggested by the combination of Briffe et al. and D'Hooge et al. of using the descend quick access pushbutton to store a new descend display configuration. Appellants request reversal of the rejection of claim 3.

Dependent claim 4 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D'Hooge et al. of selecting the new climb display configuration with the climb quick access button. Appellants request reversal of the rejection of claim 4.

With regard to dependent claim 10, Appellants respectfully disagree with the Examiner's characterization of the teaching of Briffe et al. in paragraph 2 of the Final Office Action:

Briffe teaches the avionics system of claim 9 wherein the cursor control panel further comprises phase of flight quick access pushbuttons for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration by selecting the new configuration with controls on the cursor control panel and pressing a phase of flight quick access pushbutton for storing the new configuration (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66 – col. 27 line 16 and fig. 20)

Briffe et al. teaches that “[p]ressing the ‘ALT’ push-button selects current altitude holding.”

Briffe et al., column 24, lines 33-34. Briffe et al. does not teach an apparatus or method for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration, by means of a single pushbutton, multiple pushbuttons, or by any other means. D’Hooge et al. does not teach separate pushbuttons rather it teaches a single pushbutton with multiple features (of which storing a configuration is not one) and does not cure the deficiencies of Briffe et al. Accordingly, Appellants request reversal of the rejections of claim 10.

Dependent claim 11 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D’Hooge et al. of a climb quick access pushbutton for selecting a climb phase of flight display configuration and for reconfiguring the climb phase of flight display configuration. Appellants request reversal of the rejection of claim 11.

Dependent claim 11 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D'Hoooge et al. of a cruise quick access pushbutton for selecting a cruise phase of flight display configuration and for reconfiguring the cruise phase of flight display configuration. Appellants request reversal of the rejection of claim 11.

Dependent claim 11 includes the additional limitation not taught or suggested by the combination of Briffe et al. and D'Hoooge et al. of a descend quick access pushbutton for selecting a descend phase of flight display configuration and for reconfiguring the descend phase of flight display configuration. Appellants request reversal of the rejection of claim 11.

With regard to dependent claim 12, in addition to depending on claims which Appellants maintain are allowable over the cited prior art, this dependent claim contains the further limitation of pilot-selected climb phase of flight configurations for the middle window consisting of a vertical terrain profile, a checklist index, and a flight management system text and for the lower window from the group consisting of a present position, a plan, a datalink, a chart, a traffic, and a maintenance format. The Examiner states in paragraph 2 of the Final Office Action:

Briffe also show[s] a middle window display configuration from the group consisting of a checklist index, a flight management text system, and a vertical terrain profile and a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats (Briffe clearly teaches th[at] in fig. 21 . . . the middle window 556 shows the checklist such as NORM, WET, DRY etc. and the lower window shows position at 18000 FT.)

Appellants respectfully assert that the Examiner has improperly equated changes to data entries in a static display configuration, the teaching of Briffe et al., with display configurations associated with flight modes that can be reconfigured, the teaching of the present invention. Accordingly, Appellants request reversal of the rejection of claim 12.

With regard to dependent claim 13, in addition to depending on claims which Appellants maintain are allowable over the cited prior art, this dependent claim contains the further limitation of pilot-selected cruise phase of flight configurations for the middle window consisting of a vertical terrain profile, a checklist index, and a flight management system text and for the lower window from the group consisting of a present position, a plan, a datalink, a chart, a traffic, and a maintenance format. The Examiner states in paragraph 2 of the Final Office Action:

Briffe also show[s] a middle window display configuration from the group consisting of a checklist index, a flight management text system, and a vertical terrain profile and a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats (Briffe clearly teaches th[at] in fig. 21 . . . the middle window 556 shows the checklist such as NORM, WET, DRY etc. and the lower window shows position at 18000 FT.)

Appellants respectfully assert that the Examiner has improperly equated changes to data entries in a static display configuration, the teaching of Briffe et al., with display configurations associated with flight modes that can be reconfigured, the teaching of the present invention. Accordingly, Appellants request reversal of the rejection of claim 13.

With regard to dependent claim 14, in addition to depending on claims which Appellants maintain are allowable over the cited prior art, this dependent claim contains the further limitation of pilot-selected descend phase of flight configurations for the middle window consisting of a vertical terrain profile, a checklist index, and a flight management system text and for the lower window from the group consisting of a present position, a plan, a datalink, a chart, a traffic, and a maintenance format. The Examiner states in paragraph 2 of the Final Office Action:

Briffe also show[s] a middle window display configuration from the group consisting of a checklist index, a flight management text system, and a vertical terrain profile and a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats (Briffe clearly teaches th[at] in fig. 21 . . . the middle window 556 shows the checklist such as NORM, WET, DRY etc. and the lower window shows position at 18000 FT.)

Appellants respectfully assert that the Examiner has improperly equated changes to data entries in a static display configuration, the teaching of Briffe et al., with display configurations associated with flight modes that can be reconfigured, the teaching of the present invention. Accordingly, Appellants request reversal of the rejection of claim 14.

III. The Examiner's rejection of Claims 1-7 and 10-14 under 35 U.S.C. § 103(a) over Briffe et al. in view of D'Hooge et al. should be reversed because the combination of Briffe et al. and D'Hooge et al. would not result in the present invention

Even if combined, it is respectfully submitted that Briffe et al. and D'Hooge et al. would not teach the present invention. There are many selections that are made in Briffe et al. and yet there is no indication as to which one would obtain the benefit of using the technique of

D’Hooge et al. Indeed, there is no indication as to which of the many inputs that could be made using Briffe et al. should utilize the technique of D’Hooge et al. D’Hooge et al. teaches “press[ing] and hold[ing] the switch button 163 for an extended period of time to indicate that the record movie feature is desired.” D’Hooge et al., column 9, line 67 – column 10, line 1. There is no indication in D’Hooge et al. or in Briffe et al. as to why or how the techniques of D’Hooge et al. should be applied to reconfigure video flight displays and further to reconfigure flight displays in accordance with mode of flight. Indeed, one combining D’Hooge et al. and Briffe et al. would likely utilize such systems for inputting the flight plan parameters described in detail in Briffe et al. rather than reconfiguring displays as described in the present application. Accordingly, it is respectfully submitted that one of ordinary skill in the art following the teachings in the combination of D’Hooge et al. and Briffe et al. would achieve a very different system than that cited in the claims 1-7 and 10-14. Therefore, reversal of the rejections of claims 1-7 and 10-14 based upon the combination of D’Hooge et al. and Briffe et al. is respectfully requested.

CONCLUSION

In view of the foregoing, the Appellants submit that:

1. Claims 9-10 are not properly rejected under 35 U.S.C. § 102(b) over Briffe et al. and the rejection should be reversed; and
2. Claims 1-7 and 10-14 are not properly rejected under 35 U.S.C. § 103(a) over Briffe et al. in view of D'Hooge et al. and the rejection should be reversed.

Accordingly, the Appellants respectfully requests that the Board reverse all claim rejections and indicate that a notice of allowance respecting all pending claims should be issued.

Respectfully submitted,

Date

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By

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CLAIMS APPENDIX

1. (Original) A method of selecting, displaying, and reconfiguring display configurations on an avionics display in an avionics system on an aircraft for different phases of flight of the aircraft comprising the steps of:

selecting a prestored climb display configuration for display on the avionics display with a climb quick access pushbutton on a cursor control panel when the aircraft is in a climb phase of flight;

reconfiguring the prestored climb display configuration into a new climb display configuration with controls on the cursor control panel and on the avionics display;

pressing the climb quick access pushbutton for a period of time to store the new climb display configuration;

selecting a prestored cruise display configuration for display on the avionics display with a cruise quick access pushbutton on the cursor control panel when the aircraft changes to a cruise phase of flight; and

selecting a prestored descend display configuration for display on the avionics display with a descend quick access pushbutton on the cursor control panel when the aircraft changes to a descend phase of flight.

2. (Original) The method of claim 1 further comprising the steps of:

reconfiguring the prestored cruise display configuration into a new cruise display configuration with controls on the cursor control panel and the avionics display; and

pressing the cruise quick access pushbutton for a period of time to store the new cruise display configuration.

3. (Original) The method of claim 1 further comprising the steps of:

reconfiguring the prestored descend display configuration into a new descend display configuration with controls on the cursor control panel and the avionics display;
and

pressing the descend quick access pushbutton for a period of time to store the new descend display configuration.

4. (Original) The method of claim 1 further comprising the steps of selecting the new climb display configuration on the avionics display with the climb quick access pushbutton on the cursor control panel.

5. (Original) A method of selecting, displaying, and reconfiguring display configurations on an avionics display in an avionics system on an aircraft for different phases of flight of the aircraft comprising the steps of:

selecting prestored display configurations for display on the avionics display with quick access pushbuttons on a cursor control panel in accordance with the aircraft phase of flight;

reconfiguring the prestored display configurations into new display configurations with controls on the cursor control panel and the avionics display; and

pressing quick access pushbuttons for a period of time to store the new display configurations.

6. (Original) The method of claim 5 for selecting, displaying, and reconfiguring avionics display configurations in an avionics system wherein the step of selecting prestored display configurations on the avionics display with quick access pushbuttons further comprising the steps of:

selecting a prestored climb display configuration for display on the avionics display with a climb quick access pushbutton on the cursor control panel when the aircraft is in a climb phase of flight;

selecting a prestored cruise display configuration for display on the avionics display with a cruise quick access pushbutton on the cursor control panel when the aircraft changes to a cruise phase of flight; and

selecting a prestored descend display configuration for display on the avionics display with a descend quick access pushbutton on the cursor control panel when the aircraft changes to a descend phase of flight.

7. (Original) The method of claim 6 wherein each of the steps of selecting the climb phase of flight configuration, the cruise phase of flight configuration, and descend phase of flight configuration comprises selecting a middle window display configuration from the group consisting of a checklist index, a flight management system text, and a vertical terrain profile and selecting a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats.

8. (Original) An avionics system having displays with display configurations pilot-selected for a phase of flight of an aircraft and reconfigurable for each phase of flight comprising:

a flight display for storing and displaying stored phase of flight display configurations for each phase of flight of the aircraft; and

a cursor control panel connected to the flight display for changing from one stored phase of flight display configuration to another stored phase of flight display configuration when selected by the pilot for a phase of flight and for reconfiguring the display configuration for each phase of flight.

9. (Original) The avionics system of claim 8 wherein the flight display further comprises:

a middle window for displaying a pilot-selectable display configuration;

a lower window for displaying a pilot-selectable display configuration; and

line select keys for selecting the middle window and lower window display configuration.

10. (Original) The avionics system of claim 9 wherein the cursor control panel further comprises phase of flight quick access pushbuttons for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration by selecting the new configuration with controls on the cursor control panel and pressing a phase of flight quick access pushbutton for a predetermined time to store the new configuration.

11. (Original) The avionics system of claim 10 wherein the cursor control panel further comprises:

a climb quick access pushbutton for selecting a climb phase of flight display configuration and for reconfiguring the climb phase of flight display configuration;

a cruise quick access pushbutton for selecting a cruise phase of flight display configuration and for reconfiguring the cruise phase of flight display configuration; and

a descend quick access pushbutton for selecting a descend phase of flight display configuration and for reconfiguring the descend phase of flight display configuration.

12. (Original) The avionics system of claim 11 wherein the climb phase of flight configuration displays a pilot-selected display configuration for the middle window from the group consisting of a vertical terrain profile, a checklist index, and a flight management system text and for the lower window from the group consisting of a present position, a plan, a datalink, a chart, a traffic, and a maintenance format.

13. (Original) The avionics system of claim 11 wherein the cruise phase of flight configuration displays a pilot-selected display configuration for the middle window from the group consisting of a vertical terrain profile, a checklist index, and a flight management system text and for the lower window from the group consisting of a present position, a plan, a datalink, a chart, a traffic, and a maintenance format.

14. (Original) The avionics system of claim 11 wherein the descend phase of flight configuration displays a pilot-selected display configuration for the middle window from the group consisting of a vertical terrain profile, a checklist index, and a flight management system text and for the lower window from the group consisting of a present position, a plan, a datalink, a chart, a traffic, and a maintenance format.

EVIDENCE APPENDIX

No evidence was submitted pursuant to 37 C.F.R. § 1.130, 37 C.F.R. § 1.131, or 37 C.F.R. § 1.132 by the Appellants during prosecution of the present application. No evidence provided by the Appellants and entered by the Examiner is relied upon by the Appellants in this appeal.

RELATED PROCEEDINGS APPENDIX

There have been no decisions rendered by a court or the Board relating to the present application.